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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/830,038	04/23/2004	Eric Kochman	8234.039	7513

7590 12/29/2004

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EXAMINER

FASTOVSKY, LEONID M

ART UNIT	PAPER NUMBER
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3742

DATE MAILED: 12/29/2004

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

10/830,038

Applicant(s)

KOCHMAN ET AL.

Examiner

Leonid M Fastovsky

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 15 September 2004.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-19 is/are pending in the application.
- 4a) Of the above claim(s) 8 is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-7, 9-19 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 23 April 2004 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.
- Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. _____.
 3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413) |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | Paper No(s)/Mail Date. _____ |
| 3) <input checked="" type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08) | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152) |
| Paper No(s)/Mail Date <u>20040714</u> . | 6) <input type="checkbox"/> Other: _____ |

DETAILED ACTION

Election/Restrictions

1. Applicant's election without traverse of Species II, figures 2 and 4A in the reply filed on 9/15/04 is acknowledged. However, claim 8 is withdrawn from the consideration because of non-elected species 1, 4b and 9.

Claim Rejections - 35 USC § 103

2. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

3. Claims 1-5, 11-13 and 17-19 are rejected under 35 U.S.C. 103(a) as being unpatentable over Norichika (JP07006867) in view of Sandberg et al (6,288,372). Norichika teaches an electric blanket comprising at least one continuous heating means 3, at least one continuous current leakage conductor 5, at least one continuous NTC (Negative Temperature Coefficient) sensing means 4 placed between, and electrically connected to the heating means 3 and the current leakage conductor 5, the NTC sensing means provides current leakage between the heating means 4 and the current leakage conductor 5, further including insulation means 7, and an abnormal exothermic temperature is detected by a resistant conductor 1 having sensing means (corresponding to claim 5). However, Norichika does not teach a controller for protection

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from hot spot and mechanical intrusion into the heater which is detected by measuring the imbalance of electric current. Sandberg discloses a heating cable 10 that employs a controller-ground-fault protection devices - (GFPD) 32 (Fig. 3) to sense current imbalance flowing between live end 12 and a neutral end 14 of the electrical circuit that could generate hot spots, and GFPD 32 then trips breaker 26 which thereupon disconnects the phase conductor 12 from the phase bus 28, thus preventing damage of the heater (col.1, lines 55-65, col. 3, lines 1-25). The imbalance could be a result of cutting or tearing, or abrasion of the cable 10 or for whatever reason that could be a hot spot (col. 3, lines 1-24). It would have been obvious to one having ordinary skill in the art to modify Norichika's heater and the method of protection to include a GFPD controller to measure the imbalance of electrical current flowing between the live and neutral ends 12 and 14 as taught by Sandberg in order to protect from hot spot that could cause damage to the heater.

As for claim 11, it would be obvious to use the inventions of Norichika and Sandberg in the method of protecting the heater from hot spot and mechanical intrusion because they disclose all the structures elements of the invention.

As for claims 3 and 17, Norichika has the conductor 5 that inherently connected to the ground (See attached translation of paragraph 061.

As for claim 13, it would be obvious to make the hot spot current leakage limiting setting lower than a mechanical intrusion current leakage limiting setting because the current leakage may occur more often than the mechanical intrusion.

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4. Claim 7 is rejected under 35 U.S.C. 103(a) as being unpatentable over Norichika in view of Sandberg and further in view of Mackta (5,912,811).

Norichika in view of Sandberg discloses substantially the claimed invention, but does not disclose a return conductor that provides a cancellation of electromagnetic field in the heating cable. Mackta discloses an electric heating blanket 12 having wires 18 and 20 and a device 10 for reducing the EMC's produced in the blanket 12. It would have been obvious to one having ordinary skill in the art to modify the invention of Norichika to include an additional conductor to be in contact with the sensing means and use the device as taught by Mackta that would cancel electromagnetic field in the blanket as taught by Mackta (col. 5, lines 7-9).

5. Claims 6 and 14 are rejected under 35 U.S.C. 103(a) as being unpatentable over Norichika in view of Sandberg and further in view of Gerrard (6,310,332).

Norichika in view of Sandberg discloses substantially the claimed invention further including sensing means 1, but does not disclose a PTC sensing means. Gerrard teaches an electrically heating blanket comprising a PTC sensing and detecting means 16X and 40X (col. 5, lines 1-16, col. 6, lines 1-20). It would have been obvious to one having ordinary skill in the art to modify the invention of Norichika in view of Sandberg to include a PTC sensing means as taught by Gerrard in order to provide an maximum heating level control.

6. Claims 9 and 15 are rejected under 35 U.S.C. 103(a) as being unpatentable over Norichika in view of Sandberg and further in view of Horn et al (6,737,610).

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Norichika in view of Sandberg discloses substantially the claimed invention, but does not disclose a visual indicator. Horn discloses an electric blanket 10 comprising a heating assembly 22 and the thermostatic control controlling the temperature, and a safety sensor 36 that send the signal to the safety indicator 34, which provides a visual display that a fault has been detected in the heating assembly 22 (col. 4, lines 45-65). It would have been obvious to one having ordinary skill in the art to modify the invention of Norichika in view of Sandberg to include a visual display as taught by Horn to indicate that the system is overheated.

7. Claims 10 and 16 are rejected under 35 U.S.C. 103(a) as being unpatentable over Norichika in view of Sandberg and further in view of Chiles et al (6,300,598).

Norichika in view of Sandberg discloses substantially the claimed invention, but does not disclose a sound signal. Chiles teaches an electrical monitor 10 for an electrically heating mat 52, and an alarm 48 (col. 4, lines 1-28). It would have been obvious to one having ordinary skill in the art to modify the invention of Norichika and Sandberg to include an alarm as taught by Chiles in order to indicate that the electric blanket is overheated.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Leonid M Fastovsky whose telephone number is 571-272-4778. The examiner can normally be reached on M-Th. 8.00 am -6.00 pm.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Robin Evans can be reached on 571-272-4777. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

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Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).



Leonid M Fastovsky
Examiner
Art Unit 3742

Imf

12/15/04



ROBIN O. EVANS
PRIMARY EXAMINER

12/21/04